

SUMMER'S CHILDREN: AN OUTDOOR EDUCATIONAL CURRICULUM TO HELP
CHILDREN DISCOVER THE BEAUTY OF NATURE

By

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Abstract

Changes in current societies are affecting childhood experiences. In an era where children spend countless hours indoors and on electronic devices the questions must be asked, are children developing valuable connections to the natural world around them? How much quality time are they really spending in the out-of-doors in a natural environment that would induce a connection? Time for outdoor play has diminished as nature has become to be regarded as separate from everyday life. The importance of an outdoor educational curriculum is established that would allow children to have a closer connection to nature by allowing a healthy balance of the time children spend outdoors. This project explores the questions of what an outdoor educational curriculum would look like that is project-based and child-led. A curriculum that would help children develop a sense of place, a sense of identity, and one that would help children develop self-efficacy while building self-esteem. This paper presents the main dimensions that quality outdoor experiences help to establish in the growing child and highlights the role of professionals and families in creating quality outdoor learning experiences.

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Introduction

Summer's Children: Activities to Help Children Discover the Beauty of Nature is the fruits of 18 years of experience with children's summer camp life. What began simply as parental interest in getting my own children out of doors in a social environment grew into the larger recognition of what positive outdoor experiences can contribute to the growing child. Every summer in the green landscape I saw children in the garden, in the fields, in the woods, around the fire, on the trail- children whose absorbed faces reflected their satisfaction. The more intimately I observed these children, the more I appreciated the quality of these playing-working-learning experiences allowing children to develop their sense of place, self-esteem and confidence. I began to understand that leadership, affection for children, sound psychological skills, can-when coupled with Nature for a partner-create harmony from which children may carry happy and enduring memories into adult life. Our social structure has its roots in the experiences of all growing children: for children- impression by impression, effort by effort, assimilation by assimilation become men and women, citizens, parents- the living fabric of the world.

In this project, I applied my experiences watching and learning from children to develop a curriculum that includes lessons, activities and projects that help children come back to nature in a healthy and responsible way. The aim of this curriculum is to provide children with opportunities to find a sense of place, develop their place identity and self-efficacy, build skills, exercise creativity and art, and foster stewardship of the environment.

Rationale

This project really began 20 years ago. As a young parent, I decided that after sending my four-year-old to a summer camp in our community, I would start my own summer

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camp. Looking at the local camp programs that existed at the time and at the results of my children's experiences after attending those camps, I knew that I could run a camp and develop a camp program that children would love. This program would engage children in a hands-on way, it would be one that included farming and working in the soil, one that would include art because I knew how much my children gained from quality art experiences and one that would give children the chance to build self-esteem through the power of creating something beautiful. And so, the very beginnings of Wild Rose Summer Camp began to formulate, an art-based, outdoor educational camp located in Fairbanks, Alaska. Little did I know that it would take years to discover the activities, the projects, and the organization that would make a camp that children could not wait to come back to year after year. After many years of studying what lessons, activities and projects really resonate with children I have consolidated them into a resource handbook. This book can be used by camp staff; it can also be shared with other outdoor educational programs, schools, and community organizations that are looking to incorporate hands-on, nature-based, art curriculum.

Theoretical Framework/ Literature Review

This curriculum project is based on theories of place attachment and place identity (Scannel & Gifford, 2009) as well as children's self-efficacy and agency (Bandura, 1977). In developing this curriculum, I hoped to answer the following questions: *What kind of curriculum can help children develop a sense of place? How can this curriculum lead children to find a sense of identity? And what kind of curriculum can help children develop self-efficacy while building self-esteem?*

The philosophy of honoring children's perspectives and viewing them as active agents who create their own experiences and place in the world (Green, 2013) is important in

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considering activities that will provide children with meaningful experience. This project's intent is to recognize the importance of children's participatory rights and allow them to learn about what is important to them (United Nations, 1989, 2005, Green, 2013). This curriculum resource provides children opportunities to exercise agency to choose the skills that they see as important to help them develop as responsible and creative human beings. It is place-based and one that inspires children to find a sense of identity, self-worth and connection to the natural world around them.

Place Attachment

There has been much debate and attention in the subject area of place attachment in recent years (Scannel & Gifford, 2009). Place attachment, the bonding that occurs between individuals and their meaningful environments, (e.g., Giuliani, 2003; Low & Altman, 1992) has been an area of increasing interest in the field of environmental psychology. This affective bond between people and places may include different actors, social relationships, and places of varying scale (Manzo & Perkins, 2001). Scannel and Gifford (2009) state that, "part of this interest stems from the awareness that person-place bonds have become fragile as globalization, increased mobility, and encroaching environmental problems threaten the existence of, and our connections to, places important to us" (p. 1). I would like to look more closely at the area of place attachment involving children and the natural world around them. In an era where children spend countless hours indoors and on electronic devices the questions must be asked, are children developing valuable place attachment/connections to the natural world around them? How much quality time are they really spending in the out-of-doors in a natural environment that would induce a connection? Sobel (2016) in his research on forest kindergartens claims "twenty-first-century children spend an average of eight hours a day interacting with digital media and

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thirty minutes a day outside” (p. 30). My attempt at developing this curriculum resource for summer camp has been to help re-establish a healthy balance of the time children spend outdoors thus encouraging a deeper connection to their environment.

I have often wondered why I am so connected to the place that I grew up. How can there be an association so strong to a place that I have not lived in now for over 35 years? Yet still, there is a calling to me to go back there every year and breathe in the air, the seasons, the sounds, the smells, the sights and the life of that place. A calling that is so strong and one that if not met leaves my spirit unnourished. The place of my childhood feeds me. It feeds the soul when I am in need of restoration or grounding. It feeds my body as I swim in the waters of my childhood or walk the wooded paths of the forest or eat the food from the Midwest earth. It feeds my mind as I remember all the lessons learned, the experiences gained and the relationships attained. It feeds my future and the future of my children as I fight for conservation and the environment. My attachment to this place has been my foundation that I stand on even now 40 years later. These adventures live in my mind still and hold precious memories that have shaped who I am today and what I value in education.

Thinking back to our own childhood, where was it that we loved to play as a child? What did we as adults remember as important aspects to the play environment we knew as a child? Was it the hills, meadows, fields, streams, trees and woods that drew us out-of-doors in what seemed endless summers of sun and activity? Thinking back even further to our great-grandparents day, most people spent the better part of their lives outside. They walked to school or work, tended their fields or gardens, hunted and fished. Nature was not something attained but it was an integral part of their lives. As Louv (2005) states, “to be human was to be part of the natural world” (p. 10). Our society has changed drastically since those times and we have come

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to regard nature as separate from normal daily life. Louv (2005) in his book, *The Last Child in the Woods*, speaks about how our society has come to the place where we disregard nature as a possible therapy. He claims it as a vital element for healthy childhood development. More than a hundred studies of adults and children show that spending time in nature reduces stress, while other studies show that contact with the natural world significantly reduces symptoms of attention deficit disorder in children as young as five (Louv, 2005). In natural landscapes children utilize all their senses, something they do not do in front of a screen. According to Cornell (2015), “recent studies have shown that contact with nature increases a child’s feelings of awe, aliveness, and connectedness” (p. 40).

In my resource curriculum, I have included activities and games that work with immersing children in nature, one that allows them to get their hands and feet dirty and one that places them in a natural environment where they can begin to see, feel, taste, touch and listen to the world around them in a different way. My continuous aim is to create a playspace that will help children connect to the natural environment. The playspace and the curriculum that informs it provides a space for creative learning and playful discovery and a place where children develop a sense of attachment and find a sense of identity. Specific research grounded in place identity and place attachment considers how children become attached to their physical environment (Green, 2013). Included in my curriculum is the importance of surrounding the children in a beautiful natural environment, which they can experience year-after-year and develop a deep connection to.

Place attachments can be important because they contribute to the quality of a child’s life and/or they can influence and affect a person’s life after childhood (Cornell, 2015). When children spend countless hours each day in front of electronic devices it is imperative to examine

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what is gained and what is lost in this activity. Are these electronic devices taking away from our children those special places they could otherwise be using their time to find and explore or are these devices giving children a “new” special place in a virtual world? According to Sobel (1992), making a special place or becoming attached to this special place empowers children because it supports their sense of self and self-efficacy. In this day and age the more we can do to encourage self-efficacy in our children the better. Children create their own special place as is evident when you watch a group of children playing in the woods. Very shortly you will see forts and hideouts, fairy homes and dwellings of all sorts. These special places give children feelings of safety, self-worth, and confidence (Sobel, 2008). They give them a sense of identity and allow imagination and creativity to flow freely without hindrance from adults or others (Louv, 2005). According to Sobel (1992), special places provide spaces where a child can get away, refocus, reflect on personal matters, relax, or play. Children may not have a special place of their own due to various reasons. Encouraging and incorporating these special places in the design of this camp curriculum, helps children who otherwise do not have these places. Planning and designing for wooded areas and building supplies or “moveable parts” where children can create shelters or “fairy houses” that they can come back to, is also a way to help establish a love of environment as well as providing a sense of place attachment by building their own special places (Sobel, 1992). These ideas and concepts are at the root of this curriculum resource.

Scannell and Gifford (2010) use multi-dimensions to view place attachment. One dimension can be viewed from a cultural/group and an individual perspective. At the individual level place attachment is stronger for settings that elicit personal memories (Scannell & Gifford, 2010 p. 1). It is the experiences occurring in that place that create the meaning of that place. Creating a space that encompasses a natural environment for creative play and hands on learning

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certainly over time elicits vivid memories and connections for children. Wild Rose Summer Camp does this for children. It is not only the lessons, activities and projects that I feel are important to curriculum, but it is also important to surround the children with an environment that the children can feel the strong pulse of the natural world in. One that is beautiful and soothing, calm, and peaceful. One that provides varied terrain, including fields and trees, gardens, dirt and water, grasses and flowers, sticks and rocks (Hanscom, 2016). These are the things that children need so badly; an environment that gives children the chance to experience the outdoors fully. For it is the many memories and experiences as they build and grow in this type of environment that defines the place for them and helps create strong place attachment and place identity.

In Carrus, Scopelliti, Fornara, Bonnes and Bonaiuto's (2014), article on place attachment, the authors suggest that the "more attached individuals are the more likely they are to contribute to the well-being of their community through civic-activism and the protection of their environment" (p. 156). Isn't civic action something we want to build into our curriculums? Cornell (2015) states that "to create a society that truly loves and reveres the natural world, we must offer its citizens life-changing experiences in nature" (p. 15). Sobel (1996) reiterates this theory by advocating that children must be allowed to experience nature before they are interested in "saving" it (p. 12). Constable (2015) states that "creating a love for the outdoors can only be done when children are exposed to it in reality" (p. 2). It is important to create an environment that the children love so much they want to come back to; one that holds memories of special places and events. The appreciation of the surrounding natural world as children experience their special places around them can help to shape a future reverence and connection to their environment, a connection that can extend out into the world.

Place Identity

The theories of place identity are important ideas to consider when understanding the need to involve the students in a curriculum that will invite them to develop and sustain a connection to their surroundings. Place identity is a concept in the field of environmental psychology, which proposes that identities form in relation to environments (Proshansky, Fabian, & Kaminoff, 1983). The term was introduced by environmental and social psychologists Proshansky et al., (1983), who argue that “place identity is a sub-structure of a person’s self-identity, and consists of knowledge and feelings developed through everyday experiences of physical space” (p. 62). Proshansky et al., (1983) also state that “the place identity of a person can influence their experiences, attitudes and behaviors” (p. 59). It is also directly related to a person’s attachment to a place as well. Place identity is a versatile concept upon which many psychological theories of human–environment relations are built (Proshansky et al., 1983). Seamon’s (2014) concepts of place identity as it contributes to supporting or eroding the lived structure and dynamics of a particular place fits strongly with the sense of place I would like to create into the environment of summer camp. His dialectic focuses on the idea that people living in or otherwise associated with a place take up that place as a significant part of their world. They come to feel a part of place and associate their personal and group identity with the identity of that place (Seamon, 2014). Greenwood (2013) states “as centers of experience, places teach us and shape our identities and relationships” (p.93). As Green (2013) states in her research entitled, *A Sense of Autonomy in Young Children’s Special Places*:

By designing spaces which allow children to claim their own place, create their own rules, exercise creativity and imagination, and allow for the development of environmental

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competency, adults can better support children in fostering their place identity and a positive relationship with the natural world. (p. 27-28)

Over the years of holding Wild Rose Summer Camp I have heard time and time again from children and parents alike how much this camp means to them. The camp experience seems to have penetrated their place identity; it has become a part of who they are and the place has become their own. In my curriculum, I have included a design of an environmental space where children can feel at ease to experience the world of nature around them. This play space provides opportunities and activities where children can pursue imaginative and creative play, where they can build and find their own special places, those places that build knowledge and experiences and one which will allow children to develop a deep connection to their surroundings

Place Based Education

This curriculum is also framed around the principles of place-based education. Sobel (2004) in his article entitled *Distance From Beauty*, defines place-based education:

Place-based education is the process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum. Emphasizing hands-on, real-world learning experiences. This approach helps students develop stronger ties to the community, enhances student's appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens. (p. 11)

Working with youth in a natural environment provides many of these "hands-on, real-world learning experiences that create and involve ties to the community. They are valuable in that they prepare youth to look at their communities in a new way and to reach out and work on issues that are in their community. They teach youth to become involved and to connect to what is

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important to them. It allows them to see change happen as a result of their efforts. It gives youth the awareness that they are valuable assets to the community right now because they have so much to offer, thus empowering children to realize their potentials.

Place-based learning, is evident throughout my curriculum project. Place-based education uses an approach to curriculum development and instruction that acknowledges and makes use of the places where students live to induct them into the discourses and practices of any and all subjects (Smith, 2013). Many of the activities in my handbook are based around the children's surrounding environment. They also can include community resources and volunteers. There are many individuals in our community that have so much to offer and love to come to Wild Rose Summer Camp and donate their time to work alongside the children as they help create a learning playscape for children. As examples, some of these individuals provide activities in kiln firing, entomology, meteorology, animal care, and weaving and spinning. It is a win-win situation when both the children and the community members gain insight in the interactions. This type of place-based learning is where students, communities, and the environment all benefit. When place-based education is integrated into educational curriculum children can better understand what is being taught because the lessons come from the child's everyday experiences (Smith, 2013). When students are interested in subjects because of their connection to them then learning is an easy process.

Media and place-based education

Sobel (2004) in his article entitled a *Distance From Beauty*, says, "Schools hover like alien spacecraft, luring children away from their home communities. More and more we drive a wedge between our children and the tangible beauty of the real world" (p. 9). The influence of

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electronic media on our youth today is at an all-time high. Smith (2013) addresses this topic in his article by saying:

When electronic media and schools together direct children's attention away from their own lived experience, it is not surprising that they find it difficult to become attached to and responsibly involved in their communities. Nor is it surprising that they are spending less and less time getting to know natural places within or beyond their neighborhoods. (p. 213)

Richard Louv (2005) in his work entitled *The Last Child in the Woods*, speaks about how things are very different now from the era where children spent a large part of their free time outdoors, playing in the streets or empty lots, the woods or the fields. There seems to be fewer opportunities to go out-of-doors and play in the mud or go barefoot in the grass, or run through the fields or dig in the dirt and plant the seeds that they can watch grow into the food that they eat. The time to imagine, create and play is so often cut short for other scheduled agendas. In today's world children are taken into the fast-pace of modern adult society and put into schedules that are the fast-paced ones of adults.

As a parent and elementary teacher, I have watched this happening in many of the children today since the development of the cell phone and texting, computers and other electronics. These devices have encroached into all of our lives and have an addictive hold over us. It takes a certain conviction and will power to step back and not let these devices control our lives. Our schools with the onset of "personalized learning" have more and more required the use of computers to differentiate in the classroom (FNSBSD, 2017). Children are spending more time on their devices not only at home but also while at school. Instead of providing education that requires getting the students out into the community or bringing the community into the

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classroom, teachers are relying more and more on classroom computer programs and apps to educate our children. It seems that now more than ever hands-on, interactive, outdoor, place-based education is needed. Clark (2008) in his article entitled, *Learning to Make Choices for the Future*, talks about the concern that the youth culture of today has turned away dramatically from nature and the outdoors. Studies show a drastic decrease in the amount of time children spend outdoors (Clark, 2008). This is partly due to time spent on electronic devices. One of the prominent goals of place-based learning is to connect children to nature. The strong bond to home place can be an important prerequisite to taking an active role in the stewardship of one's community. The gift that the outdoors has to offer children is endless. There are lessons to learn in every discipline in the natural world just waiting for those eager little hands, minds and bodies to come out and play!

I see that this curriculum has the potential to bring students closer and more connected to their environment. As Sobel (1996) so accurately states in his book *Beyond Ecophobia*, "Healthy ways to foster environmentally aware, empowered students is to support children's biological tendency to bond with the natural world" (p. 8). It is the responsibility we all have as parents, siblings, teachers, educators and friends to share the beautiful world we live in to those wonderful youth that will shape the future. Sobel (1996) states that there are ways to foster environmentally aware, empowered students. He suggests curing ecophobia with ecophilia-supporting children's biological tendency to bond with the natural world (Sobel, 1996). He goes on to say that this is a simple solution, no rainforest curriculum, no environmental action, just opportunities to be in the natural world modeling with a responsible adult.

This curriculum resource handbook also aligns with Sobel's (1996) guidelines for environmental education. These guidelines explain that in early childhood activities should

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center on enhancing empathy toward the natural world. In middle childhood exploration should take precedence. And in early adolescence, social action should assume a more central role (Sobel, 1996). According to Sobel (1992), making a special place or becoming attached to this special place empowers children because it supports their sense of self and self-efficacy. This curriculum aspires to help support children's agency in exercising their place identity and environmental connections. It is one thing to study nature in a textbook. It is a completely different one to let the child's environment become a large part of the learning experience. This is the spirit of place-based learning.

Self-Efficacy and Skill Development

From the earliest ages children try to understand how they can participate meaningfully in society (Louv, 2005). Giving children the opportunities to build their skill development through hands-on activities empowers them in this participation as well as allows them to build self-confidence. My interest in skill development with children first began in the early years of founding Wild Rose Summer Camp. It was during these years of observing children while engaging in skill development projects that my knowledge and understanding of the benefits of these activities for children began to come to light. There wasn't a child that did not feel proud of himself for creating something beautiful with his hands. In his pride, he became more confident in his activities to make additional and even more complicated works. As I have moved into teaching in the elementary schools and have implemented various programs involving skill development, I continue to see this same type of behavior. It is in the countless times that I watch a child's self-esteem and confidence abound when working with his hands that has led me to write this curriculum.

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There has become an emerging interest in the field of teaching skill development to students, particularly in the elementary school (Graves, 2005; Muursepp & Kikkull, 2014; Ronkko, Mommo, & Aerila, 2016). Studies that examine this relationship are few but those available suggest that skill development integrated into an educational curriculum can benefit students by building cognitive skills, fine motor skills, problem-solving skills and self-esteem (Kaufman, 2009). The result of the accumulation of these types of skills can contribute to a student's self-efficacy. Psychologist Albert Bandura has defined self-efficacy as one's belief in one's ability to succeed in specific situations or accomplish a task (Bandura, 1997). Little research has been done specifically on skill-development and its effects on self-efficacy but neuroscientists, psychologist and therapists alike are beginning to see the benefits skill development can play in the lives of not only adults but in children as well (Muursepp & Kikkull, 2014; Kaufman, 2009).

In the development of this curriculum guide the concept of skill development helping to build self-efficacy in children, is part of the theoretical framework that I have built upon as I considered the projects, activities and lessons that were included. This theory includes honoring children's perspectives and viewing them as active agents with the ability to choose what skills they want to learn in order to build confidence in themselves. There are few if any professional, peer-reviewed sources that focus on the benefits of skill development in building self-efficacy in children and even fewer that study student's own choices in order to initiate their own learning. There are many peer-reviewed journal articles that deal with the concepts of self-efficacy or with the concepts of child development that can be applied to this subject area but they do not address it specifically (Moilanen, Autio, Ruokonen, & Ruismäki, 2012). However, there are many book resources, non-peer-reviewed articles and online resources that align well with the topic of

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research in the discussion of the benefits of skill development for children. Bandura (1977) states that a person's sense of self-efficacy can play a major role in how one approaches goals, tasks, and challenges. The theory of self-efficacy lies at the center of Bandura's social cognitive theory, which emphasizes the role of observational learning and social experience in the development of personality. Bandura does not define self-efficacy in terms of skill development but he does say that observational learning and social experiences play a part in the development of self-efficacy (Bandura, 1977). Skill development fully lies in this realm. Self-efficacy affects every area of human endeavor. By determining the belief a person holds regarding his or her power to affect situations, it strongly influences both the power a person actually has to face challenges competently and the choices a person is most likely to make (Bandura, 1977).

Rudolf Steiner, A German philosopher and founder of Waldorf Education stated, when speaking of skill development in the Waldorf School curriculum,

The purpose is not to train weavers, potters, etc., but rather for the pupil, by practicing such work, to be able to stand more secure on leaving school, with a basic confidence for managing the practical affairs of life. (As cited in Graves, 2005, p. 2).

Today with so much technology surrounding us there are fewer opportunities for adults or children to be creative in their play or work. Not only do we forgo the joy and sense of achievement that the skill of making something can give us, but without the possibility to be creative there is limited or minimal access to the essential formative powers skill development can foster in the growing child and adult (Graves, 2005). Maria Montessori was an Italian physician, educator, and innovator, acclaimed for her educational method that builds on the way children naturally learn. Montessori sought out educational techniques that utilized movement and manipulation. She wrote in her book *The Absorbent Mind* stating:

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He [the child] becomes fully conscious and constructs the future man, by means of his activities. He is directed by a mysterious power, great and wonderful, that he incarnates little by little. In this way, he becomes a man. He does it with his hands, by experience, first in play and then through work. The hands are the instruments of man's intelligence. (Montessori, 1949, p. 57)

My experiences working with children in skill development has shown that students who demonstrate skills in one area are capable of transferring those feelings of accomplishment to other areas of their lives. Many times, I have observed children as they have made something beautiful with their own hands. Their sense of accomplishment and pure joy is evident, thus contributing to a positive self-identity. They are more willing to go on and try something even more challenging. It is hard to feel yourself a failure when you have created something beautiful. Skill development provides purposeful, meaningful work, which is just what children in present days need. So often classrooms fill a child's day with work that has no intrinsic meaning. Building skills can be a medium to explore creatively in all subject areas (Mursepp & Kikkull, 2014). Learning new skills can pursue so much of what we want children to learn. Skill development becomes a way for the child to practice designing, planning, and executing a project (Ronkko, Mommo, & Aerila, 2016). It becomes a practice in collaboration and self-discipline (Lebitz, 2016). It can be the method by which the teacher can help even the most distracted children find focus and interest (Lebitz, 2016). In my own experience asking children what they would like to learn and then teaching them those skills has proved to be an educational task that engages children in a way that abstract learning does not. Hedwig Hauk (1968) in his book entitled *Handwork and Handicrafts from Indications by Rudolf Steiner*, states:

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Children who learn while they are young to make practical things by hand in an artistic way, and for the benefit of others as well as for themselves, will not be strangers to life or to other people when they are older. They will be able to form their lives and their relationships in social and artistic ways, so that their lives are thereby enriched. Out of their ranks can come technicians and artists who will know how to solve the problems and tasks set us by life. (p. 15)

Livingston and Mitchell (2009) in their book entitled *Will Developed Intelligence*, states that:

Biologists have discovered that when we are born, our brain has billions of active neural passageways. These passageways have a correlation with our ability to think when we reach adolescence, if they are correctly exercised during the early and middle childhood years. If they are not used, they simply atrophy. We keep them active through the use of our hands. The brain discovers what the fingers explore. (p. 8)

It has been my full intention to include opportunities for skill development in my curriculum. It is important that all young people have the opportunity to participate in activities, which directly affect their lives. In this day and age the more we can do to encourage self-efficacy in our children the better. An appreciation of the surrounding natural world as these children build skills and experiences that encourage attachment to places around them can help to shape a future reverence and connection to their environment, a connection that can extend out into the world. Nurturing children's agency to plan, design, and work on skill development gives them the opportunity to succeed and to believe in themselves and to become confident individuals empowered to be active members in their community.

Methodology

In my curriculum, I have used the instructional approach of project-based learning, which is designed to give students knowledge and skills through engaging projects (Schuetz, 2018). The essential elements of project-based learning involve focusing the children to what the challenge is, bringing what the children should academically know, understand, and be able to do into the project, encouraging inquiry, using skills such as critical thinking, communication, collaboration, and creativity, supporting children's choice, providing opportunities for feedback and revision of the project and allowing the children to present their results (Schuetz, 2018). My methodology also works on the instructional approach of child-led learning. This type of learning is based on the idea that children are naturally curious about the world. By allowing them to explore they become life-long learners and take on the responsibility of their own education. Exploring the world is a natural activity and when children trust themselves they develop confidence and self-esteem.

I have supported my choices of the activities and projects in this curriculum by considering which allow students to gain a deeper knowledge through active exploration and real world-challenges. I considered including activities and projects that encourage students to learn and apply knowledge and skills through engaging experiences. This method of learning teaches children to "learn by doing." As I designed this curriculum I considered questions Amy Demarest (2015) asks in her work entitled *Place-based Curriculum Design*.

How can we relate a child's learning to their own life experiences? How can we help students to better understand how the ideas being studied work in the real world and how can we help students to better understand themselves and the place they live in? (p. 5-6)

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The actual curriculum itself is a handbook that helps children discover the beauty of nature through activities, projects and games. There are thirty-four activities, projects or games arranged in various thematic units. The headings for these units are: We love dirt! Sustainability, The Forest, Fire!, Outdoor Art, and Nature Games. Included under each of these headings is a discussion of the importance of these special activities for healthy child development. Each activity or game includes procedures, objectives and a listing of the resources needed to implement the activity. The handbook has been formatted to be printed as a 5-1/2" by 8" book. The book is printed on colored paper with different colored script on various sections. Photographs have been incorporated throughout the book of children taken from past years of Wild Rose Summer Camp. Permission to use these photographs has been given by the children's guardians.

Discussion

Each of the projects, activities, and games in this outdoor educational curriculum include the theoretical framings that support children's sense of place, self-identity and self-efficacy along with encouraging children's connection to their surrounding natural environment. This curriculum extends the literature in the field of outdoor educational thinking by giving concrete activities, projects and games that have been tried over the past 18 years and tested and have been shown to contribute to these theoretical framings. As I worked at compiling activities for this curriculum, I found that additional research on other outdoor environmental activities could further augment this curriculum. The more I research this field, the more activities I find that I would love to experiment with. In doing this research, I am complimenting my summer camp program by adding new activities that I have not yet tried with children and I am interested to see how they work out.

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In the beginning of each section I provide a philosophical reasoning to why the activities in this section are important for children to experience. I describe the activities in narrative form- easy to read and to understand- and I also provide photos to clarify the procedures. At the end of each section I give objectives: what skills the activity would help to develop in the child, followed by any resources needed to develop the project.

I believe this curriculum can be used by other outdoor institutions to enhance their programs, whether they be summer camps, schools, park programs, girl or boy scouts, or families wanting new ideas to engage their children in nature. The handbook is designed to be able to page through the sections easily and find activities that may be of interest. The handbook is divided into sections with activities that are focused around the section's topic. For example, if you are interested in finding some new games you can go to the section on games and page through it. If you are interested in teaching children about fire you go to that section and find activities that could help do this. I tried to include activities that required little or no materials except resources from the natural environment in the surrounding area. Although, I have included some art projects that are nature based and do require more materials to execute. The more I selected and wrote up the activities for this curriculum the more activities I wanted to include. I had a hard time stopping the work. There are so many more activities I have used with children that I know would work well in this handbook. Due to time constraints, I ended the work where I did. Already after barely finishing I would like to edit this edition further and create yet another edition. I already see many ways of improving it. The graphic design alone could be revamped along with the inclusion of other activities and projects. At this point I have only printed a few copies of this handbook due to high costs. I see changes I would like to make

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before other printings occur. My goal is to do some minor editing of this work and then print more copies and make them available to other outdoor education interests.

Conclusion

This work has been a rewarding process for me. It has made me examine closely how important it is that we as educators provide for children of all ages opportunities to experience the natural world in a healthy way. It is all too easy for children to stay indoors behind screens and waste the years of childhood away. We must stand guard like sentinels over our children's childhood. We must avoid creating a way of life in which children have no time to play. For play is every child's right. We must allow them to learn to build, to dream, to plan, to escape into those imaginative worlds that they are so much in need of and which in today's fast-paced society they have less and less opportunities to be a part of. It is of utmost importance that as parents and caregivers we give children opportunities to be outside on a daily basis allowing them the trust they deserve and the freedom they need to explore and to try out new ideas and play schemes. We must provide children with opportunities to find a sense of place, develop their place identity and self-efficacy, exercise creativity and art, and develop their skills. It is these direct experiences that teach children who they are and who they want to become. It teaches them to become stewards for the natural world around them giving them ownership and responsibility. For the world needs young informed, creative and collaborative leaders ready with the skills and the motivation they need to work for justice, sustainability and a healthy future for our planet.

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Appendix

SUMMER'S CHILDREN



**Activities to Help Children
Discover the Beauty of Nature**

Susan Kerndt

SUMMER'S CHILDREN

**Activities to Help Children
Discover the Beauty of Nature**

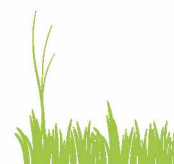
Susan Kerndt



Acknowledgements
To all the Wild Rose children that
have filled my summers with joy!

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Introduction

This resource is the fruits of 18 years of experience with children's summer camp life. What began simply as parental interest in getting my own children out of doors in a social environment grew into the larger recognition of what positive outdoor experiences can contribute to the growing child. Every summer in the green landscape I saw children in the garden, in the fields, in the woods, around the fire, on the trail- children whose absorbed faces reflected their satisfaction. The more intimately I observed these children, the more I appreciated the quality of these playing-working-learning experiences allowing children to develop their sense of place, self-esteem and confidence. I began to understand that leadership, affection for children, sound psychological skills, can-when coupled with Nature for a partner-create harmony from which children may carry happy and enduring memories into adult life. Our social structure has its roots in the experiences of all growing children: for children- impression by impression, effort by effort, assimilation by assimilation become men and women, citizens, parents- the living fabric of the world.



We Love Dirt!

"In spring, at the end of the day, you should smell like dirt!" - Margaret Atwood

Projects to Get Dirty With

Giving children opportunities to spend out-of-doors in the natural world is a gift. Children learn how to build, to dream, to plan, to escape into those imaginative worlds that they are so much in need of and which in today's fast-past society they have less and less opportunities to be a part of. Where have the opportunities gone to go out-of-doors and play in the mud or go barefoot in the grass, or run through the fields or dig in the dirt and plant the seeds that children can watch grow into the food that they eat? The time to imagine, create and play is so often cut short for other scheduled agendas. Children are so often asked "to not get dirty", "to stay out of the mud", "to not stomp in the puddle and get wet," when in reality children need and love these experiences! So, go ahead, put your boots on or better yet, take off your shoes and socks and go right ahead into those puddles and mud holes and stomp around with your children and feel the joy! There are lessons to learn in every discipline in the natural world just waiting for those eager little hands, feet, minds and bodies to come out and play!



Build an Earth Oven

Children love to build with mud! Centuries of the world's children have played in the mud built mud pies, formed landscapes with flowing rivers, lakes, and ponds, immersed themselves in imaginations inspired by this watery-gooey substance. Why is it that children love mud so and why is it so important to allow children this experience?

Building an earth oven with your child can be fun and easy; all you need is a pile of dirt, a little sand and some water. Find an area where you can mix the dirt and water together. On a bare patch of ground mound up your sand into a dome shape. This is



done easily by mixing the sand with water so it will hold its shape. The size can vary depending on what size you want the inside of your oven to be. When the dome is formed, smoothed and packed down, you are ready to start applying mud on the sides and over the top. Have the children make mud "bricks" that are not too wet but are firm, and begin stacking them all around the sand dome. First make a

ring of bricks around the bottom layer and continue to place three to four rings of brick around the base of the sand dome. When it appears that the mud is starting to sag from the weight of the above layers stop work and let the construction dry until the next day. Continue this process by wetting the top layer of mud slightly and again stack up mud bricks until the entire dome is covered. Let this structure dry overnight or longer. When sufficiently dried, cut out an arched doorway, remove the dried mud and shovel out the sand. There stands your oven!



If you are interested in making your oven into some sort of creature or object you can sculpt the surface by applying more mud into whatever form that suits your fancy or preferable the children's! The building process of an earthen oven is a delightful experience for children as they are allowed to get dirty and to feel the mud squish through their toes and hands. It won't take long and you will find the children loving the mud so much they will be sitting in it and covering themselves with it!

Ideas for oven forms: lady bug, dragon, octopus, castle, pufferfish, whale, musk ox, snail, frog and hundreds of other possibilities!



This is an earthen oven in its simplest form. Of course, you can elaborate in all aspects of the building process to create a structure that is more permanent by building a foundation first under the oven, finding a ratio of door size to oven size for better air flow or by making a fancy door to cover the entrance.

During construction of your earthen oven you can talk with the children about cob, adobe and other forms of earth construction. All of these are types of building done in different parts of the world that involve earth, sand, straw, clay and other natural materials. Sometimes when working with children the simpler the better becomes evident. The more children can take on a project without elaborate directions and formulas to make it successful the more agency you give to the children.



Objectives

To stimulate creative play and problem solving

To stimulate an awareness of the possibilities involved in earth construction

RESOURCES

- Dirt
- Sand
- Water
- Digging Tools



Cooking in the Earth Oven



Create a snug door out of a plank of wood to cover the entrance to your newly formed earthen oven. Build a fire in the inside of the oven and stoke with larger pieces of wood (see activity on fire safety). Let burn for a couple of hours and then when the fire is burned down, push back all the coals to the outer edges of the fire chamber and place the desired food inside. Close oven door and bake!



Before cooking it is a good idea to set a small sample of the food you are baking inside to determine if the oven is yet too hot. It can be easy to start cooking when the oven temperature is too high, which for example will result in bread blackened on the outside and raw on the inside.



Children love to grind grain and make bread. Mixing, kneading, forming the rolls of loaves, firing the earthen oven and allowing them to bake their

own bread is a wonderful way to connect children to the food that they eat. Any kind of food can be cooked in this oven so don't be afraid to try all sorts of recipes.





Although adult-led, involve children in the firing and baking activity. When they are allowed to learn and understand about fires and fire safety and given opportunities to make and cook food for the group, they are given agency to be responsible, contributing members. They are proud to have made the oven from the earth, learned how to fire it, prepared the food to go into it and cooked the food in the beautiful structure they have helped create!

Objectives

To connect children to the food they eat

To give children agency to prepare and cook their own food



RESOURCES

- Earthen oven
- Food of all sorts
- Cooking pans or sheets
- Wood for oven door

Build an Earth Kiln



Just like an earthen oven an earth kiln can also be formed with eager hands and lots of mud! There are many ways to fire pottery. As before, in teaching children about this process it is much better to keep it as simple as possible. Kilns can take many different forms but the basic idea of a kiln is to hold a fire that surrounds clay pots. This fire heats pots to temperatures that will change their

composition and the end results are fired pieces that have changed from fragile dried clay to hardened objects.



Open-pit Firing

To begin with, open-pit firing is a great introduction to how clay can be fired. This is basically as simple as placing a dried clay creation into a camp fire and allowing it to remain in the fire until the fire has died down (without placing any more wood onto it that may damage the pots). Upon retrieving

the “fired” pot the children will see how the fragile properties of the unfired clay has now changed. The color of the clay has turned along with a blackened surface and the pot is much more durable and can now be handled roughly with no fear of damage.

Sawdust Kiln

Another simple kiln can be built by stacking up bricks as if you were making a square chimney. Stack this structure on bare ground two to three feet high. Place a 3-inch layer of sawdust on the ground inside the brick structure and begin to layer your clay pottery on top.





After one single layer of pots are laid down spread another two to three inch-layer of sawdust over the pots. Continue layering pottery and sawdust in this way until you have reached the top of the brick structure or until there are no more pots left.



Children love to help this layering of sawdust and pots and get so excited to place their own pots into this kiln. When the layering has been completed light the sawdust at the top and allow to burn until it looks like the fire is well established. Cover the top of the brick stack with a metal plate of some kind. And let the kiln "simmer" for the day.

There will be a continual stream of smoke from the kiln and there should not be visible fire. The following day the blackened pots will all have gently settled to the bottom of the stack and will be lying in a pile of ash. Making sure the ash has cooled, let the children gently pull the pots out of the kiln and listen to their squeals of glee as they discover their own!



One Chambered Earthen Kiln

Another type of kiln can use the earthen oven as described earlier. I have seen this type of kiln used in Central America by women's pottery cooperatives. It is basically a domed-shaped structure built out of earth with a chamber inside. This structure can be huge like the ones in Central America or smaller like the earthen bake oven. To fire this sort of kiln, fill the chamber with as much wood as will fit as possible. Stack the unfired pottery inside, placing it carefully on top of and around the wood. Light the wood on fire and close the door to keep as much heat in as possible. Let burn all day and the next day when the fire has died down and cooled completely, have the children sift through the ash to find the pots. Enjoy their new look!



Two-Chambered Earthen Kiln

A more elaborate earthen kiln can be created by using the same technique as the earth oven described earlier. The main difference is that instead of one chamber that holds the fire and the pottery or the food when used for cooking, there is another chamber that will be built that will hold the fire separately from the chamber that holds the pottery. The fire chamber can then be stoked



continuously throughout the firing without disturbing the chamber where the pottery is.

In this kiln, a dome-shape is made from the earth similar to the earthen oven but the only difference is that an earthen fire box that channels the fire in front of the holding oven must be included in the plan. This kiln is two interlocking chambers starting out as two mounds of sand. The fire chamber mound can be a little more rod-shaped and the pottery chamber more rounded. The process is exactly the same as building the earthen oven. Build up the mud bricks around the two dome

structures letting the layers dry when they reach a certain height to prevent sagging. Continue layering the mud brick until the entire two-part structure is covered. Let dry for a few days.



When dry, cut an arched door in front of the fire chamber to use as the entrance for placing wood into the fire chamber. Cut another arching door into the side of the pottery holding chamber. This entrance will be used to place the pottery inside the kiln when ready to be fired. After the pottery is placed inside this entrance it will be bricked and mudded over to cover the entrance so all the heat stays inside the kiln. The fire box chamber is then lit and stoked continuously for a designated period depending on how long is required to melt any slips or glazes or any particular special effects desired. We often put pottery temperature cones inside of the pottery chamber of this kiln. Adding a small brick in the pottery chamber entrance that can be pulled out and used as a 'peek' hole allows us to see if the cones have fallen over, thus determining the ripeness of our glazes.



With this kiln plan, a continuous fire in the firebox can be stoked and feed throughout a longer period of time. This allows the pots to reach hotter temperatures granting the clay body or the glazes, if applied, to reach their optimum temperatures. With this type of earthen kiln, children will spend



hours watching the process, gathering wood, helping to stoke the fire, watching the glowing pots inside the kiln through the peek holes and anticipating the end of the firing and how their pots will look.

Overall, allowing children opportunities to build kilns, work with clay and understand the firing process opens them up to an understanding of an age-old art form while empowering them to take on responsibility.

Objectives

To introduce an awareness of fire and fire safety

To introduce the idea of matter changing form

To give children agency to be responsible, confident individuals

RESOURCES

- An area of ground that can be dug up to make mud
- Sand used as support for the shape of the structures
- Water
- Digging tools
- Bricks
- Firewood
- Formed leather hard pottery



Make Pots Out of Clay

Just like mud children love to work with clay. The experience of working with clay is invaluable for sensory development, self-esteem, self-expression and problem-solving skills. Clay wants to be poked, pinched, twisted and rolled and as they handle it, children develop both fine and major motor skills. The feeling that they are in command of the clay



gives children the confidence to attempt any project which opens the door to greater self-expression and imagination. Clay also allows a child to learn to repair mistakes and therefore not be afraid to make them. The forgiving quality of clay, and therefore the ability to readily fix mistakes, gives the child a sense of control over their project's success which improves self-esteem and self-expression as they realize that mistakes aren't going to stop their progress. Working with clay can have a peaceful, calming effect on children.

Pass out balls of moist clay and ask the children to mold it into a shape of their desire or give a particular idea of what the shape could be. For example, a cup,

a whistle, a bird, or other animals.

When the children have finished their clay creations, let them dry out in the sun. When dry, low fire glazes or slips can be applied if desired.



These pots can now be fired in any of the kilns described above!

As an addition to making pots a local potter invited to talk with the children or better yet work with the children is a wonderful experience for children to connect their clay work to the community.

Objectives

To stimulate self-expression and self-esteem

To stimulate exploration, curiosity and observational skills

RESOURCES

- Clay
- Water
- Clay tools
- Low fire slips or glazes





Sustainability

"To create a society that truly loves and reveres the natural world, we must offer its citizens life-changing experiences in nature." - Joseph Cornell



Teaching our Children How to Live on This Earth

Sustainability is understanding the impact that we have on the earth, and what we leave for future generations. Teaching our children about sustainability through hands-on activities can help our children to cultivate environmental stewardship and a love for the planet. Sustainability can encompass a number of things from outdoor education to gardening. What better way to foster a love of the environment than spending time outside and exploring nature? Taking children for nature walks, involving them in nature games, and teaching them about composting and gardens can empower children to construct knowledge, explore values and develop an appreciation of the environment and its relationship to their world. Sharing in and appreciating a love of the outdoors will inspire children to care for the earth.

This lays the foundations for an environmentally responsible adulthood.



Compost

The Rotten Truth



When allowing children, the opportunity to make compost you are giving them a life-long skill. This activity allows children to understand how decomposition happens, how compost builds the soil up to make a more sustainable garden future. Building a compost pile with children connects them to the earth and helps them understand what it means to be a steward of the earth. It is the beginning process of how to grow their own food. It allows children the opportunity to exercise agency to choose skills that they see as important to help them develop as responsible and creative human beings.

Build a Compost Pile

Have the children help gather the three basic ingredients for a compost pile and place in an area where the pile is to be built.

Basic ingredients include:

Carbon materials (brown materials): dried leaves, straw, dried grass, or old hay.

Nitrogen materials (green materials): kitchen scraps, manure, green lawn clippings, newly fallen leaves, weeds or anything fresh,

Soil materials: soil or old compost.

First start out by loosening up the soil in which the compost pile will sit on. This area can be as small as three feet by three feet or much larger depending on how much basic ingredients you have available. Being natural diggers the children love this job and they go at it with great enthusiasm!



Next, have the children start layering the three basic ingredients by putting a layer of each on top of the other. Order does not seem to matter but it is important to wet down the pile from time to time to make sure it has enough moisture to help break down the organic matter.

Keep adding material layers to the pile until it is at least three feet high. It can go much higher than this depending on how much material you have on site. When you have finished layering the materials, have the children wet it down one last time and cover the whole pile with a “skin” of old hay, straw or dried grass.

If available, insert a compost thermometer into the pile and watch the temperature rise in the next few days. As the temperature gets hotter, encourage the children to dig their hands into the pile and feel its warmth. Have the children place a raw egg deep into the pile and after a day bring it out and open it to show that the pile gets hot enough to “cook” things! Children love this activity as is seen in their faces as they light up when they see the egg has cooked!

Objectives

- To stimulate stewardship of the earth
- To stimulate awareness of one’s surroundings



RESOURCES

- Carbon materials
- Nitrogen materials
- Soil materials
- Digging tools
- Water source
- Raw egg



Compost Cake

This activity works best if done just before or after students have built a compost pile.

Materials: Have ready compost ingredient cards. These cards can have the letters C, N, and S on them. Talk with the students about what are the basic compost ingredients: **carbon** materials (brown materials): dried leaves, straw, dried grass, or old hay, **nitrogen** materials (green materials): kitchen scraps, manure, green lawn clippings, newly fallen leaves, weeds or anything fresh, and **soil** materials: soil or old compost. The soil cards should also include what kind of bacteria or fungi. **Macroorganisms**: worms, mites, grubs, and insects. **Psychrophiles**: bacteria and fungi that work best at 55 degrees. **Mesophiles**: bacteria and fungi that work best at 70-90 degrees. **Thermophiles**: bacteria and fungi that work best at 160 degrees but can work in the 105-180+ degree range. **Anaerobes**: bacteria that work with little or no oxygen.

Directions:

Explain to the children that the basis of a good garden is the soil. Through the natural process of decomposition soil can be replenished. We can speed up this decomposing process by composting. Ask the children to hang the cards around their necks and explain that they will represent the ingredients on their card. With a long rope outline the



perimeter of your compost pile playing area. Explain to the children that similar to a layer cake compost is built in a series of repeating layers. First, we can layer the carbon materials (pretend to shovel 3 or 4 children wearing the C ingredient card and line them up at the bottom of the pile. Next shovel 3 or 4 nitrogen children onto the pile by lining them up in a row above the carbon children. Now introduce the soil materials. Explain to the children that the soil materials are not just dirt alone but this dirt contains macroorganisms (worms, mites, grubs and insects), and microorganisms which are different bacteria and fungi that are active at different times and temperatures during the decomposition process. Those active at a particular time and temperature will move to the center of the compost circle when their optimum conditions are indicated. As conditions change, they will move back out to the edges and be replaced by other organisms who work best in the new conditions.

Explain that the decomposition process is speeded up when carbon and nitrogen materials are first broken down into smaller pieces. Ask the soil macroorganisms to introduce themselves and pretend to sprinkle them as a frosting layer on top of the nitrogen layer. Squirt the pile with a fine spray of water and explain that this provides the organisms with moisture and gets the pile cooking. The children love this sprinkling, especially if it is a hot day! Ask the macroorganisms to move around and begin to break down and mix up the other ingredients.

Tell the children as decomposition progresses the pile starts to heat up. Make the analogy of how we get warmer as we work hard or exercise. Pretend to use a thermometer and take the temperature of the pile, announcing a reading of 55 degrees. Have the soil organisms whose card indicates that they work best at these lower temperatures (psychrophiles) enter the pile and begin to work as the macroorganisms move to the edges.



Continue checking and announcing new temperatures at 1 minute intervals, letting the mid-temperature range organisms (mesophiles) move in at 75 degrees, followed by the high temperature range organisms (thermophiles) at 110 degrees.

Explain to the children that the oxygen level of the pile is dropping. This usually happens within two or three days in an active compost pile. The thermophiles then move to the edges and the temperature drops again bringing back the mesophiles. Finally, the oxygen supply is exhausted and the pile begins to smell. The mesophiles leave and the anaerobes enter. Anaerobes do not need oxygen but they work very slowly. The decomposition in the pile is now reduced by 90%.

Ask the students how the decomposition process could be activated again. (Add more oxygen by stirring up the pile.) Use your imaginary shovel to mix up the pile. And more moisture (a fine mist from the garden hose) and the decomposition process continues. The children love to mix around amongst themselves at this point. Explain that after four to six weeks of such activity, decomposition will be complete and rich compost can then be added to the garden.

Objectives

To stimulate discovery, exploration and understanding of living things
To develop an understanding of the decomposition process and how it relates to the human being

RESOURCES

- Green materials
- Brown materials
- Soil materials
- Water
- Digging tools
- Compost thermometer (optional)
- Compost ingredient cards



This activity has been adapted from Deborah Parella's (1995) book, Project Seasons.



The Garden

"To plant a garden is to believe in tomorrow."

- Audrey Hepburn



Growing a garden with children provides them with opportunities to find a sense of place, and an opportunity to bond with their environment, giving them a connection to the natural world around them. In an era where children spend countless hours indoors and on electronic devices the questions must be asked, are children developing valuable place attachments to the natural world? How much quality time are they really spending in the out-of-doors in a natural environment that would induce a connection? The appreciation of the surrounding natural world as these children experience special places around them can help to shape a future reverence and connection to



their environment, a connection that can extend out into the world. Growing a garden allows them to get their hands and feet dirty and one that places them in a natural environment where they can begin to see, feel, taste, touch and listen to the world around them in a different way. Children learn best when engaging all their senses. When they can see the beautiful colors in the natural world, dig into and feel the dirt on their hands and feet, hear the bees and other insects buzzing, smell the flowers and fruits they help to grow, and taste the fruits of their labors they connect to their surroundings. These are things that allow children to find their sense of identity, self-worth, and connection to the natural world. So, go ahead, get some seeds, a shovel and a good plot of earth or some pots and begin the process! Gardening can be as simple or as elaborate as you want it to be. The important things are the benefits gained when opportunities are given to children to watch seeds grow and develop into the food that they eat. Children love to eat what they grow!



Plant Seeds

Buy seeds from your local grocery store or order from a seed company or better yet use saved seeds from a past garden. Have the children dig up the dirt whether in a pot or garden bed and smooth it into a fine surface. Plant the seeds of whatever flower or vegetable preferred and water. Wait for the seeds to sprout and watch the excitement of the children as they watch their plants grow!

When children pick a carrot from the garden, wash it, cut it up and add it to the collective soup they know that vegetables are delicious, they know that the food they eat comes from the earth and they know that they are a part of the web of life. Gardening allows them to fall in love with the world around them. And when people fall in love with the world around them we also know that people want to protect what they love!

Other ways to get your child involved in gardening are to plant a tree, plant flower boxes, volunteer to weed a neighbor's garden, get a garden plot at a community garden, plant an extra row of veggies for the Food Bank or just observe with children all the beautiful plants that abound in nature!



Objectives

- To stimulate a knowledge of plants and how they grow
- To stimulate stewardship respect and sensitivity for plant life
- To stimulate wonder, physical activity and appreciation for nature

RESOURCES

- A wide variety of seeds and or vegetable starts
- Compost or rich dirt for planting
- Planting containers or garden beds
- Watering cans
- Digging tools



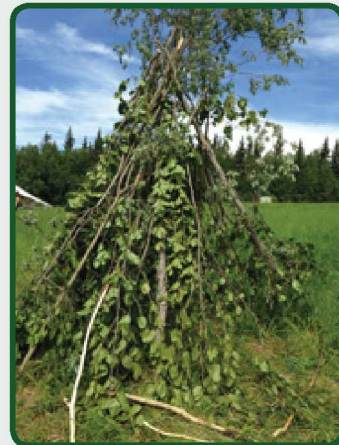
The Forest



“Creating a love for the outdoors can only be done when children are exposed to it in reality.” - Karen Constable

Thinking back to our own childhood, where was it that we loved to play as a child? What did we as adults remember as important aspects to the play environment we knew as a child? Was it the hills, meadows, fields, streams, trees and woods that drew us out-of-doors in what seemed endless summers of sun and activity? Children need to have opportunities and activities where they can pursue imaginative and creative play, where they can build and find their own special places, those places that build knowledge and experiences and one which will allow children to develop a deep connection to their surroundings.

A child’s sense of identity can be formed in his relationship to his environment. Creating a space that encompasses a natural environment for creative play and hands on learning certainly over time elicits vivid memories and connections for children. This is an important concept to consider when understanding the need to involve children in an environment that will invite them to develop and sustain a connection to their surroundings. It is our children that in thirty years’ time will be the stewards of our planet. Providing children opportunities to play in the woods, climb trees, build forts, and take risks, allows children to love the natural world and to learn how to take care of it.



Forest Play

Some of the most valuable experiences you can give to a child is to allow them non-adult-directed, free time to play in the woods. Children will naturally find endless things to do. Using their imaginations, they will build forts, create fairy houses, become heroes and villains, challenge themselves to adventurous tasks and feel the connection to their surroundings in much happier and carefree ways. A stick can easily become a rocket ship, a truck or a sword to battle their enemies. Children look at things for what they can be instead of what they are. These experiences allow children to feel alive, to be aware of their world and to be in tune with the weather and the seasons. Children can grow up realizing that the world is a beautiful place and that they are a part of it: that they can find peace and tranquility and in return be empowered to be responsible caregivers.



Building Shelters

A fun adult-led activity is one of shelter building. Take a bow saw and go out into the woods with the children and look for some straight alder, willow or other flexible saplings. Have them help you to saw trees that are about a half inch to one inch in diameter. Carry these back to a clearing. Mark out a large circle on the ground with a stick and dig small holes on the circumference of this circle about two feet apart by pounding a metal stake into the ground and swirling it around to make the hole bigger before pulling it out.

After stripping the leaves and small braches from the saplings place the butt ends into these holes and bend over in an arch shape. Tie the opposite side of the circle tips of the branches together by intertwining the tips to form a nice arch. After all the outside circle circumference saplings are bent and tied together the children can weave grass or smaller braches into the spaces. Talk to the children about other cultures and explain to them that in some areas of the world people live in shelters like this. Children love this activity as it gives them new skills and empowers them to know how to make their own 'homes.'

Objectives

- To stimulate a sense of adventure
- To stimulate a sense of experimentation and discovery



RESOURCES

- A space in the woods
- Bendable saplings
- Bow saw
- Twine



FIRE!

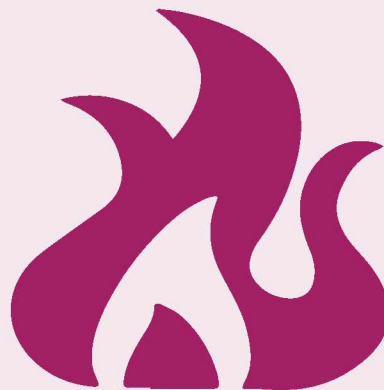
"Education is not the filling of a pail but the lighting of a fire."
- William Butler Yeats



Since earlier times fire has had a profound effect on the human being. Fire has provided a source of warmth, protection and a method for cooking food. Understanding fire safety and showing children the benefits of fire in our everyday experiences can help children to understand how fire works in all our lives.

Before we can do projects that involve fire we must first teach children about fire safety. Talk with the children about the need for rules that will keep us safe around fires and how important it is to always remember these rules. Different sites will need their own 'site specific' rules.

Show the children how we use matches to light a fire and how we use sand or water to put it out. Introduce the fire triangle that shows we need fuel (wood), heat (matches) and oxygen (air) to build a fire. Discuss with them what would happen if one of these elements was removed?



Collecting Firewood



Ask the children to collect firewood from different areas of the forest and from different kinds of trees. Teach them the difference between 'green' or 'alive' wood versus dead wood. Let them experience bending each and discovering that the dead wood snaps easily and the green wood bends but does not break easily. Explain that the 'bendy' wood is alive and that living plants contain water. Put some of each wood in the fire and watch them

burn. This can lead to discussions on smoke and crackling and which wood burns quickest.

After that, send children out into the woods to gather wood for the fire that is dry, dead wood so they can practice what they have learned.

Objectives

To introduce the children to the experience of lighting fires safely

To talk about the need for rules that keep us safe around fires.

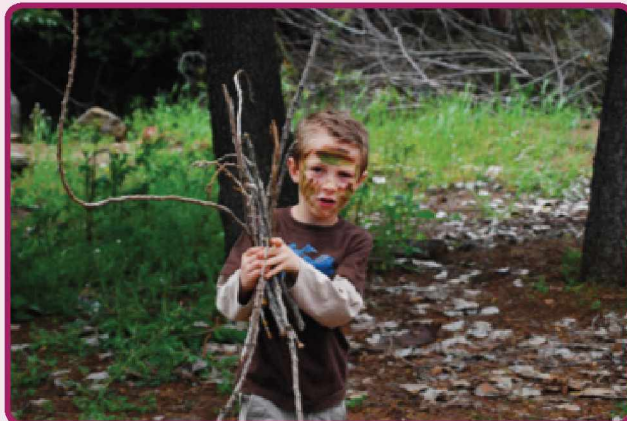
To collect fuel to light a fire

To understand that all wood is not the same and to know that wet wood does not burn because it contains water.

RESOURCES

- A cleared area with a circle of stones in the center
- Access to a place to gather firewood

Adapted from Karen Constables (2015) book, The Outdoor Classroom in Practice.



Charcoal Making

Sitting around the fire with the children, remind them about the fire safety rules and explain to them that we can use fire to change various items. Ask the children if they know what charcoal is? Some of them may know that it is used to barbeque outside during the summer. Explain to them that it is burnt wood and show the children some examples. Tell them that they will help to make charcoal that can be used for drawing.

Show the children a metal container and ask them to help punch holes into it with a hammer and nail. This container can be a cookie or cracker tin. Ask them what they think the holes are for? Explain that the holes will let steam escape without blowing the lid off. If it is a new container it would be better to burn off the paint on the container beforehand to prevent the children having to breath the burning paint smoke. Ask the children to find small sticks (preferably willow, alder or birch) to put into the can. Safely place the tin onto the fire using fireproof gloves. While the children are watching they should see smoke coming out of the holes in the tin.



The charcoal can take anywhere from ten minutes to thirty depending on how hot the fire is. The tin will be very hot when removed from the fire and the lid will be hard to remove until the container has had a chance to cool. This is clearly an activity that needs to be adult-led. When finished take the tin off the fire and allow it to cool down out of harm's way.

When cool, pass some charcoal sticks to the children and watch as they enjoy examining the changes that have taken place. Pass out some paper or birch bark and let the fun begin as they experiment with charcoal drawing!

Objectives

To know that fire can be used to change the properties of materials
To make predictions and observations about the changes they see.

RESOURCES

- Cracker tin
- Hammer
- Nail
- Wood
- Fire
- Paper or birch bark



Adapted from Karen Constables (2015) book, The Outdoor Classroom in Practice.

Cooking Over a Fire



Cooking over a fire for children is a fascinating process. Everybody loves cooking marshmallows over a fire but how about cooking bread dough, fruit, vegetables, meat or fish?

Take the children into the woods and gather firewood reminding them of the kinds of wood that burn the best: bendy verses snappy. Back at the fire circle remind the children of the fire safety rules. After lighting the fire talk to the students about how to approach the fire safely when cooking. First off, they must always be accompanied by an adult when they approach the fire and when they are through cooking they must return to the outer circle and not go back to the fire.



Easy foods to start with when cooking over the fire include, bread, meat sticks, veggies (cut into large chunks) and marshmallows. The longer the cooking sticks the further away the children stay away from the fire. These sticks work best if cut green. It is important not to have too many children in the group that is cooking over the fire. The fire does not need to be large to cook over but must be well established.

For another cooking adventure have the children help cut up vegetable that they pick from the garden if possible and have them added to a soup pot set firmly over the fire. Children love to see their food boiling and steaming over the fire especially when they have had a hand in its preparation and cooking. They love to eat what they cook!

Objectives

- To know that fire creates heat that can be used to change the properties of food
- To know how to approach the fire safely
- To cook their own snack over the fire

RESOURCES

- Fire
- Green sticks to cook with
- Food of various kinds



Outdoor Art

“Every child is an artist. The problem is how to remain an artist once we have grown up.” - Pablo Picasso

Exercising Creativity Through Art

Children love art! Exploring art opens the door to greater self-expression and allows creativity to take on an active role in the child. This creativity helps to foster a child’s imagination and to problem solve, it allows them to come up with original ideas of their own and it offers the child the chance to build self-esteem through the power of hand work. Countless times I have watched a child’s self-esteem and confidence abound when creating something beautiful with their own hands. Their sense of accomplishment and pure joy is evident, thus contributing to a positive self-identity.

When being successful in art, children are more willing to go on and try something even more challenging. Children who demonstrate skills in one area are capable of transferring those feelings of accomplishment to other areas of their lives. My experiences working with children in art has shown that it is hard to feel yourself a failure when you have created something beautiful!

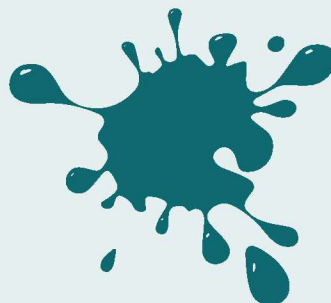
Here are some ideas for outdoor art projects that can be done with a few additional materials that children will love!



Plant Dyeing

Nature presents an incredible visual rainbow. For centuries, people have used plant material's natural hues to enrich their lives. Dyeing with plants can offer a way to explore the local environment, learn about science, conduct experiments, learn about history and other cultures and create beautiful art projects.

Natural sources of dye come from many places including food, flowers, weeds, bark, moss, leaves, seeds, mushrooms, lichens and even minerals. There are a number of methods for extracting the pigments from plants to use as a natural dye. Try one or all of the below techniques with children and watch how much enthusiasm dyeing with plants can generate!



Flower Pounding



One of the first steps in our exploration of plant pigments is flower and leaf pounding. This can be a great source of inspiration for children as they learn about plants, flower parts and the living world around them.

Flower pounding can be done on either paper or fabric. If using fabric, the cloth must be treated with a mordant to help the color stay in the cloth. In this case the mordant is alum. Run the fabric through the washer and dryer. Then place it in an alum bath which consists of $\frac{1}{4}$ cup alum for each yard of fabric. Dissolve alum with hot water in a small container first and then pour into a pot of hot water with the fabric and let set for 15-30 minutes or longer. Your fabric will be ready when dried and ironed.

From here the process is relatively straightforward: take a flower, place it on the fabric, cover it with a paper towel, and hammer away.

First gather flowers. Not all flowers are suitable for pounding. Flowers with particularly thick petals such as tulips don't work well as they tend to smear. Flowers with many petals such as roses need to be taken apart so that you can pound the petals individually. Daisy like blooms need to have their centers removed before pounding and white flowers don't work as they have no pigment to impart to the fabric.



Flowers that work particularly well for flower pounding include phlox florets, single roses or rose petals, single impatiens, pansies, hardy geraniums, forget-me-nots, and many other flowers that can be flattened without losing the integrity of the bloom. Leaves also work wonderfully well, especially herbs which give off a beautiful fragrant smell when pounded. Encourage the children to experiment and explore the woods, garden, and fields in search of the perfect plants to pound!

Lay flowers or leaves on either fabric or paper, placing the face of the flower down. If your blossom has a large center, or lots of petals, you will want to pull off the petals and place each one separately. Once you have the flowers or leaves laid out in a design, tape each down to the fabric, or cover them with a paper towel.

Begin hammering the plant material. Hammer evenly over the whole flower or leaf. When you are done pounding, remove the paper towel, peel the tape with the mashed plant, off the fabric. Leave the fabric out to dry. After your design has dried, you can scrape off any leftover bits of mashed flower. Heat set your design by laying a sheet of paper over your design, and iron the paper or fabric. Flower pounded bookmarks make a great project if using paper.

Objectives

- To stimulate awareness for different kinds of flowers and their parts
- To stimulate exploration, curiosity and observational skills

RESOURCES

- Flowers of many varieties
- Paper or cloth
- Alum
- Hammer
- Paper towel
- Tape (optional)
- Hard surface to pound on
- Iron



Sun-Brewed Plant Dyeing

Sun-brewed dyeing is a simple method of extracting plant pigments while taking advantage of the sun as a heat source. There are many ways for children to experiment with this method. Consider using various kinds of fabric or yarn and vary how long the plant materials and/or the fabrics soak in the dye baths. The possibilities are endless along with the excitement when children begin to understand the dye potential in the many kinds of plants that surround them.



The process is simple. Ask the children to collect plants or leaves that they would like to try to extract pigment from. Place crushed plant material in glass jars, various sizes will work (pints, quarts, or gallons) and add water to fill the jar. Put lids on the jars and let stand in the sun for several days. Strain the fluid out and put it back into the jar along with fabric or yarn and add $\frac{1}{4}$ to a $\frac{1}{2}$ teaspoon of alum per quart. The alum is a mordant which will help keep the plant color in the cloth. Let this concoction stand in the sun for several more days. When the children can wait no longer remove the material and rinse with water and hang to dry. Enjoy the excitement of the children as they observe the beautiful colors that nature brings!

Objectives

To stimulate wonder, curiosity and experimentation

RESOURCES

- Glass jars with lids
- Water
- Plant materials
- Fabric or yarn
- Alum
- Teaspoon



Heated Vat Plant Dyeing



Nature is full of beautiful colors that attract attention. Natural dyes have been used since ancient times. The art of plant dyeing is as old as civilization. Natural sources of dye come from many places including food, flowers, weeds, bark, moss, leaves, seeds mushrooms, lichens and even minerals. Plant dyeing is a wonderful way to engage children in the

natural world while including science and history. Discuss with the children how humans from across the globe have used plant pigments to enrich their lives. Ask the children why they think plants have so many different colors and what purpose they may serve for the plant? Depending on the age of the children chlorophyll can be discussed.

The green pigment chlorophyll in the leaves helps capture the sun's energy and convert it to chemical energy, which is then stored and used as food for the plant. Colors in flowers are adaptations that attract insects and other animals that, in turn, pollinate and help plants reproduce. Some plants have colorful fruits that attract animals to eat them, inadvertently spreading the plant's seeds as they do so. The whole history of plant dyeing through the ages could also be a topic to discuss during the dyeing process and how natural dyes were replaced by chemical dyes.



The heated vat method of plant dyeing will use a source of heat other than the sun to break down the plant pigment for dyeing. This activity will need an adult in charge since you will be heating up hot water over an outdoor propane burner or a fire. The number of dye vats to heat up will depend on the number of plant types you will experiment with. Ask the children to go out and gather plant materials to add to the hot water and explain to them that you are going to make a sort of plant 'tea' that you will then put the fabric or yarn into. This is when a garden planted with special dye plants such as marigolds, weld, Golden Marguerite, coreopsis, purple cabbage, carrot tops or onions for onion skins can be a wonderful place to gather from. It is a good idea to keep the plant types separate so the children will be able to see which individual plants create which colors. Let the plant materials simmer in the dye vats for an hour or longer.



Mordant fabric or yarn ahead of time. To do this heat a large pot of water and when hot, dissolve $\frac{1}{4}$ cup of alum for each yard of fabric. Silk works wonderfully for natural dyeing as well as cotton or wool. Place the fabric or yarn into the hot water. If you are using silk or wool be careful not to let the water boil since water that hot may damage the fiber. Cotton is fine to boil and takes up the alum better if allowed to boil. Simmer for an hour and shut heat off and leave overnight if possible. The fabric can then be used wet to be placed into the waiting simmering dye vats.

Children love to experiment to see which plants make which colors. Have scraps of cloth ready to let them plunge into the watery depths of plant colors. Allow the fabric or yarn to simmer in the hot dye vats for 15-20 minutes. The longer the material is allowed to stay in the dye vat the richer and more intense the color will be. It is possible to leave the material in the vats for several days but when dyeing with children it is better to see the results after a half hour or so.

When the material is taken out of the dye, rinse off the plant material and hang to dry. The children will be so excited to see the many hues that the world of nature offers.

Objective

To stimulate wonder, curiosity and experimentation

RESOURCES

- Large pots (preferably stainless steel)
- Water
- Heat source for cooking
- Plant materials
- Fabric or yarn
- Alum
- Measuring cup
- Stirring spoons



Papermaking from Plants

Paper making from plants is a wonderful activity to teach children about where paper comes from and how we recycle. It helps children become knowledgeable of the structure of plants and how this structure can be the main component of paper. A field or meadow with both green and dried grass works great as a classroom to first introduce papermaking.



Ask the children to pick a dried stalk of grass and a green stalk. Have them chew on the green stalk and explain to them that the green 'juice' that comes out of it is called the lignin. When all the green is chewed away, what is left is called the fiber. It is the fiber part of the plant that we use for papermaking, for it is what holds the paper together. Walk with the children and find various plant materials that they would like to experiment with to make paper out of. Encourage them to look for dried materials since most of the lignin has left the plant in the drying process and what is left is the cellulose or fiber. Children love to try all sorts of plants but some of the best plant materials to use are dried leaves, thin dried grasses, straw or dried hay, onion skins, dried flower petals, thin bark or equisetum.

When the plant materials have been gathered lay them out and begin to tear or cut with a scissors the plant materials into inch-sized pieces. Since the plant materials will later be put into a blender to make pulp, any longer grasses will strangle the blender blades and after a time kill your blender.

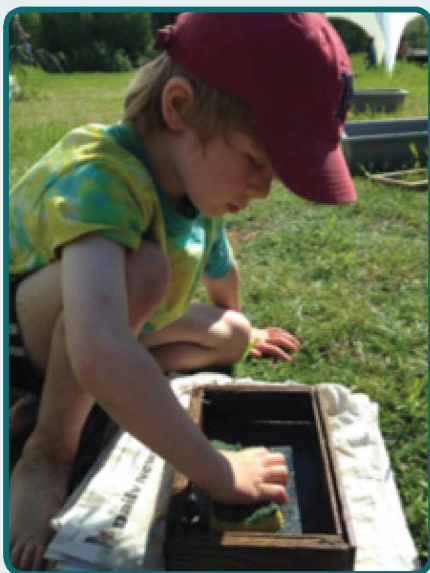




Before going any further, talk with the children about some of the things they use paper for and how paper is made. Ask them what is the large plant that most of our paper comes from? After this discussion, invite the children to gather in their own containers some of the plant materials laid out that they would like to experiment with. It is nice to have available various sorts of paper that you would like to recycle included in their selection. Adding some of this type of material will help act as a 'filler' for the plant fibers and will make the paper softer and more flexible. It is possible to make the paper entirely out of plants alone but it will be somewhat more brittle.

When the children have gathered their papermaking materials, put their individual collections separately into a food blender along with plenty of water and blend away. The blending should be done only by an adult or other responsible individual. When the pulp is smooth and thoroughly blended it is ready to go through the straining process. Have ready a deckle. This is basically a window screen stapled to a frame to hold it tight. Deckles can be improvised by just using a plain piece of screen

with any kind of mold to hold the pulp in as it is poured through the screen. Molds could be cookie cutters, embroidery hoops, mason jar rings, or any other frame type of object. When the pulp is ready, show the children how to place the screen in a tub of water and set the mold on top of it. Begin pouring the pulp into the mold being careful not to overflow the mold or let the level of water in the tub go over the top of the mold. Use the water in the tub to help evenly distribute the pulp within the mold. When pulp is spread evenly, lift the screen and mold out of the water and let drain. Press a sponge onto the pulp to help squeeze out and absorb any water left in the pulp.



When the pulp is fairly dry lift the mold off the screen and away from the pulp. With a smooth gesture, flip the pulp, screen and all onto a paper towel. After flipping the pulp and screen over, carefully remove the pulp from the screen. It will adhere to the towel and it can then be carried to a flat surface where it can be transferred off the towel and allowed to dry in the sun. For variety, add some colored paper that you would like to recycle to the materials collection and watch the children's love of color become evident as they search for their favorite colors. Other options in papermaking are to add dried flower petals to the mix or add vegetable or flower seeds to later create plant papers that you can plant and watch grow!



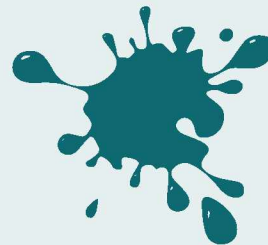
Objective

To understand where paper comes from and how to recycle



RESOURCES

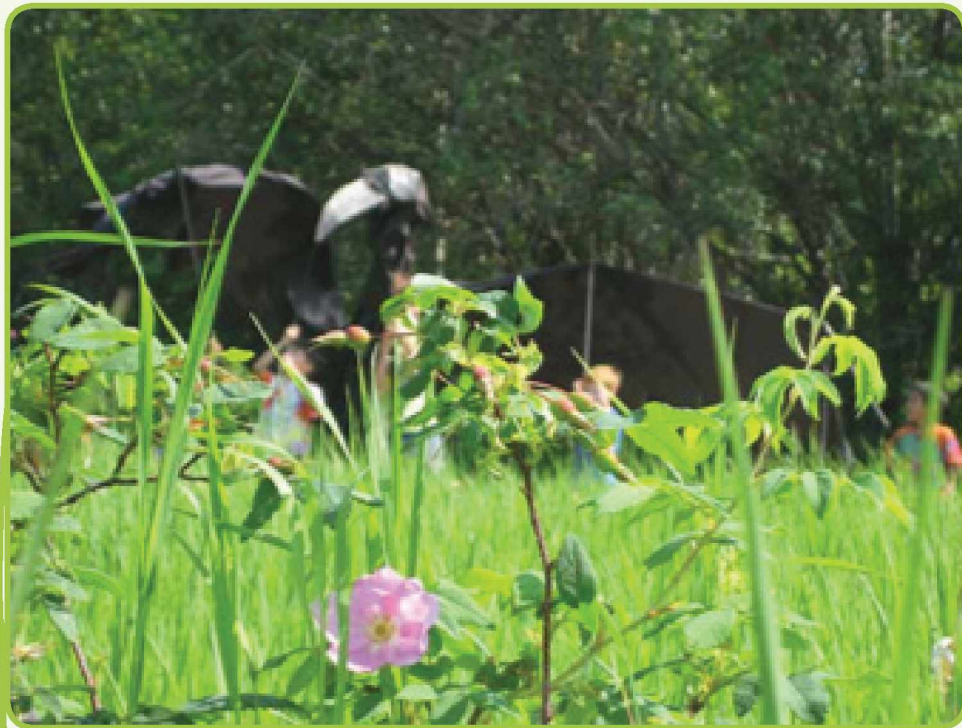
- Scissors
- Blender
- Old paper of any sort to recycle
- Molds
- Deckles
- Containers
- Water



NATURE GAMES

"To create a society that truly loves and reveres the natural world, we must first offer its citizens life-changing experiences in nature." - Joseph Bharat Cornell

Nature games are a wonderful way to bring children to a deeper understanding and rapport with nature. Joseph Cornell in his book *Sharing Nature with Children*, discusses how games can awaken enthusiasm, focus attention, offer direct experience and allow children to share inspiration of the natural world around them. The following games are some of my favorites taken from Joseph Cornell's works.



Games to Build Enthusiasm

Wild Animal Scramble

Wild Animal Scramble is a game that everyone gets involved with instantly and is a good way to start out with a new group of children that don't know each other. It is a game that awakens enthusiasm and educates children about all species of animals.

In this game, the children each have the name or a picture of an animal pinned to their back. By asking "yes and no" questions they must discover what animal they are. The players cannot ask questions using the names of animals or of groups of animals, such as "Am I a mammal?" or "Am I a bear?" Questions must be based on biological characteristics. Examples of questions to ask would be, "Do I have feathers?" or "Do I live in a burrow?" Players can respond to questions with a "Yes" or a "No" or "I don't know." Encourage players to use the "I don't know" response if they are not sure of the answer. This will alleviate wrong information which will only confuse the guessers trying to identify their animal.

When children first begin guessing their animal they don't know how to reason to come to a conclusion but as the game continues they begin to understand how to ask questions in order to narrow the field and classify their animal.

Objectives

To build on children's love of play

To create involvement

To develop animal classification skills



RESOURCES

- Large play area
- Animal cards
- Clothes pins

Adapted from Joseph Cornell's (2015) book, Sharing Nature

Bat and Moth

Bats use echolocation to track flying insects and to find their way through the darkness. This game teaches experientially about echolocation along with animal adaptation and predator-prey relationships.

Arrange children into a large circle and ask for 3 to 4 children to volunteer as moths. Choose a bat that will be able to move around comfortably while blindfolded. The bat will need to be able to “fly” around easily in the circle to track his prey.

To play the game, the blindfolded bat and the moths enter the circle made by the other children. The bat must tag each moth by using his echolocation to detect them. To imitate sending out his natural sonar signals the bat calls out, “Bat-Bat-Bat.” The moths must respond immediately with, “Moth.” The moths can move about in the circle but cannot leave the inside of the circle. Eventually the bat will tag each of the moths and the game is over. Sometimes the bat has difficulty locating the moths and so in order to help the bat, the children in the circle can move in to make the circle smaller.

Objective

To foster deeper listening skills

RESOURCES

- Large play area
- Blindfold



Adapted from Joseph Cornell's (2015) book, Sharing Nature

Animal Parts

This game helps to promote creativity along with helping children identify animals by their distinguished characteristics.

Divide your group into teams of four or five people (more in some cases may be better). Ask each group to choose an interesting animal. Tell the children that they must use all of the members in their group to form their chosen animal's, head, body and limbs. Give the teams 5 to 10 minutes to go off and 'rehearse' their animal by practicing its movements and behaviors. When the teams are ready, ask one team at a time to present their animal to the group. Encourage the audience to hold their guesses until the animal has finished its performance. Children love this game and are always so eager to show their animals off.

Another version of this game can also be played where each individual can choose an animal and act that animal out as one person.

Objectives

- To promote creativity
- To encourage animal observation skills
- To create an atmosphere of enthusiasm

RESOURCES

- Large play area



Adapted from Joseph Cornell's (2015) book, Sharing Nature

Owls and Crows

This is an excellent game to review any information that you have given to the children earlier. To play this game divide the group into two equal teams, naming one team owls and the other team crows. Place a rope or other marker across the middle of the play area to divide it into halves. Ask the two teams to stand on opposite sides from the middle line and face each other about two feet back from the rope. About 10-20 feet behind each team place a marker or another rope on the ground to indicate the home base line.



The leader makes a statement about nature. If the statement is true the owls chase the crows; if the statement is false the crows chase the owls. If a player is being chased and is tagged before he crosses the home base line he must join the opposite team. There can be a great deal of fun confusion in this

game as the children try and decide whether they should run or chase and tag. And sometimes half the players are running one way and the other half are running the other way. To alleviate some of the confusion make a few practice statements and ask the children to point in the direction they would run instead of actually running.

Examples of some statements you could make are, "moose have feathers," "spiders have eight legs," or "cows are carnivores."

Adapted from Joseph Cornell's (2015) book, Sharing Nature

Objectives

- To build on children's love of play
- To create involvement
- To develop animal classification skills

RESOURCES

- Large play area
- Ropes for marking boundaries

Predator and Prey

In this game children will demonstrate food chains as well as animal behavior. The game works best when played in a large open field where the children can run freely. When playing with a group of twenty or more children divide them into three groups. One group will include animals that eat only plants. They are called herbivores. The second group will include all the animals that eat other animals and nothing else. These are called carnivores. And the other animals in the second group eat plants as well as other animals and they are called omnivores. The herbivores will be called prey and the second group of carnivores and omnivores will be called the predators.



Designate five children to be predators, one child to be the “hunter” or human, and all the rest of the children to be prey. The numbers can be adapted to the size proportion of your group. Give the prey and the predators, excluding the hunter, each five rubber bands to put on their wrist.

As the game begins the predators, including the hunter, will try and catch the prey by tagging them. If the prey is caught they will have to give the predator who caught them one of their rubber bands. The predators can be caught by the hunter only and the hunter being at the top of the food chain in this game cannot be caught by anyone.

When the prey or predators have lost all their rubber bands they can go to the adult leader and sing for more bands or recite a nature poem. As children play this game they begin to understand the strategy involved in being prey. They soon discover that when they hide quietly they lose fewer rubber bands!

Objective

To help children understand and dramatize predator-prey relationships

RESOURCES

- Large play area
- Rubber bands

Games to Focus Attention

Sounds and Colors

This is an activity to inspire children to listen to the sounds of nature around them. Ask children to sit or lay down on the ground and close their eyes. Each time they hear a new sound ask them to raise up one finger. Raise additional fingers as they hear more sounds. After a time, have the children sit up and discuss all the different sounds that they heard. This activity helps to increase a child's attention span and concentration while deepening awareness by focusing their attention.

A similar activity to this one is challenging children to see how many different colors and shades of colors they can see.



Objective

To enhance listening and observational skills

RESOURCES

- Quiet area in woods or meadow

Adapted from Joseph Cornell's (2015) book, Sharing Nature

How Close

This is a game that can help children become aware of their surroundings. Participants learn to be especially attentive to the direction of the wind, the slope of the land, the location of the sun, microclimates, smells, and the calls of birds and other natural sounds.

In How Close players use their senses of touch, hearing and smell to discover environmental clues to help them safely navigate across an open field or meadow.

To play the game find a large field or open meadow. Areas that have small hills or sloping ground will add variety to the landscape. Have the players form teams of two. One of the players will be the Guide and the other player is the Walker, who will be blindfolded.

Before the children begin to walk, ask the group, "What natural phenomena (such as wind, sun, slope, and bird calls) might help you to stay on the straight course?" Tell them that when they have finished their walk to remain quiet so they will not influence the players still walking.

The players stand in a line and the leader will walk out across the field away from the others about 60-70 steps. When the leader is ready and the signal is given the children check the position of the leader and then their guide helps them place their blindfold on. The blindfolded players try to walk in a straight line toward, and end up as close as possible to the leader.

The guide helps to make sure the walker is safe and does not influence the walker in any way but to guide them from any hazards. When the walker comes even with the leader the guide taps the walker's shoulder to signal "stop." The leader may stretch his arms outward designating an imaginary line making the end line more visible for the guides.

Objective

To stimulate the awareness of one's surroundings

RESOURCES

- **Field or meadow**
- **cloth for blindfolds**

Adapted from Joseph Cornell's (2015) book, Sharing Nature

Camouflage Trail

This is a wonderful game that will begin conversations with children about animals that demonstrate protective coloring and the concepts of adaptation and camouflage. Children concentration mounts as they try to spot hard-to-see hidden objects.



The leader of the game must first place 15-25 manufactured objects along a section of trail 50 to 75 feet long. The area should have a variety of trees, plants and leaf litter. The objects should blend in with vegetation and ground cover but can include objects that are easy to see (such as

plastic florescent bugs) and objects not so easy to see (such as a rusty nail, or a wooden clothespin). Place objects off the trail and as much as four feet from it.

When the trail has been set up, tell the players to, "Walk carefully and count the total number of objects you see." Encourage the children to stay on the trail only and not to go towards the object they see. Ask children to not point out the objects as they see them so others may find them on their own. As the players finish the trail, they whisper to you how many objects they have seen. Children will want to have seen all the objects, so if in their first walk along the trail they have not spotted all of them invite the children to walk through again.

To keep older children engaged longer you can place one or two cleverly camouflaged objects along the path. When everyone is finished gather the group at the beginning of the trail and ask the players to walk with you along the trail and call out when you approach one of the hidden objects. You can keep a running count of the objects as they are collected and returned to the bag.

Objective

To develop observational skills

RESOURCES

- Wooded trail
- 15-25 manufactured objects

Adapted from Joseph Cornell's (2015) book, Sharing Nature

Eagle Eye

Eagle eye is a game that can teach children to be quiet, listen and move about more quietly in the natural world. It is an excellent game to teach children how to be comfortable down in the undergrowth and dirt. The leader marks off an area that will be the “eagles nest.” Whatever natural materials that are available will work for this-sticks, stones or dried grass. It can be tucked into the base of a tree or large boulder to give it more definition. As the eagle, tell the children that you will count to 40 and during that time they must go out and hide. When you are done counting, you can open your eyes and visually scan around to see if you can spot the students. You announce that you are done counting by saying something to the extent of “the eagle’s eyes are open,” or “the eagle is awake.” You can move to any place inside the boundaries of the eagle’s nest and look from there, but you may not step outside of that boundary at any time.

The children must hide so that they are not seen or heard by you. They must, however, keep one eye on you – the instructor (or “eagle”) – no matter where they are hiding and at all times.

Any children that are spotted by you come and sit quietly in the nest. They are not allowed to tell you nor point to where the other children are hiding. You can have them pretend to be eagle chicks or pretend to be some kind of eagle food, i.e. a rabbit, fish or bird.

After about 1 to 2 minutes of visually scanning, you can turn around again and count. This time count 5 or 10 seconds less. It helps to announce what number you are counting too each time you count.

At this time, the children have to move 5 steps closer to the eagle’s nest. With each consecutive time you count, they have to come closer to you by 5 steps. The goal for them is to get as close as possible to you without being spotted. The last child to be spotted becomes the new eagle.

This outdoor game for children is generally best played in a forested area with some undergrowth. Take the opportunity before or after the game to talk about how many animals have to stay hidden to stay alive. After the game, you can discuss with the children questions such as:

Where are the good hiding spots?

What colors blend in well in this landscape?

Where are the good hiding spots?

Can you name an animal that has to hide to stay alive?

What animals do you think live and hide around here?

What might happen to a mouse, rabbit or small bird that makes a lot of noise and does not hide?



Objective

To teach children about the importance of animal camouflage

RESOURCES

- Quiet area in woods or meadow

Duplication

This game introduces children to their natural surrounding and awakens their interest in plants, rocks and animals.

Before beginning the game walk around the woods or meadow and gather eight or so objects, such as a stone, an alder or spruce cone, a leaf, a seed pods, a twig, a feather, or animal skull. The possibilities are endless. Whatever you collect the objects must be common enough in the area that the children will be able to find similar objects when asked.



Lay the objects down on a piece of cloth or bandana and cover them with another cloth. Gather the children around and explain to them that under the cloth they will see natural objects that they can find nearby. Tell them that they will have 25 seconds to look at the objects under the cloth and remember them.

Then each of them will go out and hunt for a similar object. Display the objects to the children and watch them run about eagerly looking for similar objects.

When the children return with their items, gather all together around the original objects and pulling one object at a time from under the cloth tell something of interest about the object. This can be a story or some interesting fact. Because the children have been looking for the object they have built up an interest in knowing more about each one. Then ask the children, “Who found this object?” Continue until all the objects have been discussed.

Objectives

- To strengthen memory and visual awareness
- To teach natural history

RESOURCES

- Natural objects
- Two cover cloths or bandanas

Adapted from Joseph Cornell's (2015) book, Sharing Nature

Games that Offer Direct Experience

Meet a Tree

Meet a Tree connects us with trees in a memorable way. It is a wonderful way to observe trees by using our senses other than sight.



To begin divide the group of children into pairs. Giving each pair a blindfold, ask the children to choose who will be the “Seer” and who will be the one who is blindfolded. The seeing player leads the blindfolded player to a special tree. When the blindfolded player meets the tree, he can feel the texture of its bark feel how big around the tree is and explore the tree’s branches and leaves. The guide can silently guide the player’s hands to interesting places on and around the tree.

After getting to know their trees, the blindfolded players are lead back to the starting point where their blindfolds are removed. They then try to find their tree. The excitement of the children is evident on their faces as they recognize their trees!

Objectives

- To appreciate the forest
- To stimulate sensory awareness

RESOURCES

- Large area in the woods
- Blindfolds

Adapted from Joseph Cornell’s (2015) book, Sharing Nature

Caterpillar Walk

Blindfold activities promote alertness by awakening the senses. You can use Caterpillar Walk to help your group travel attentively through sunlight fields or forest clearings while they listen for the song sparrow, the wood thrush or other birds in the area.

Arrange children in a line of two to four players. Having more than four players in a string becomes unruly and difficult for walking. Blindfold the caterpillar segments and have each child place their hands on the shoulders of the child in front of them. Have a responsible leader lead each caterpillar along a



sensory trail encouraging the children to become aware of their surroundings by using their ears and hands. Stop often to let them feel the trees, boulders or to smell flowers along the path.

Once you have come to the end of your walk, have the children remove their blindfolds and gaze out at some spectacular view! On the return, ask the children to try and recognize some of the places along the path where they may remember something from their blind walk.

Objective

To stimulate sensory awareness

Adapted from Joseph Cornell's (2015) book, Sharing Nature

RESOURCES

- Trail through woods or meadow
- Blindfolds

Blind Walk

Blindfold activities can be powerful in awakening and exhilarating our minds and senses. When our sight is removed our other senses become much keener. In this game, the leader will guide his blindfolded partner along a route that may have some fascinating sensory stimuli. Explain to the partners that the blindfolded partner is totally dependent on the guide to keep him safe. Demonstrate how to comfortably lead a partner: stand next to him, clasp his hand, and pin his forearms securely against your waist with your elbow bent. In this way, the guide will remain closely connected to his partner and will be able to guide his blindfolded partner gently over logs, stones and other obstacles. The guide may bring attention to his blindfolded partner something in nature of particular interest. He can direct the non-seer to experiences that involve touch, hearing, and smell. The sensory impressions will come to the children in a whole different way when sight is not possible.



Objectives

To develop sensory awareness and trust

RESOURCES

- Blindfolds

Adapted from Joseph Cornell's (2015) book, Sharing Nature

Blind Trail

This is a wonderful game to build children's sensory awareness and trust. With forty to sixty yards of rope you can create a wonderful adventure! Find a clear pathway or area that contains a variety of features, such as older trees, moss-covered boulders, or fallen logs. Then string the rope along the trail connecting these interesting features. Be careful not to include in the trail poisonous plants, insect nests or drop offs.

To start your Blind Trail, choose a sturdy tree and tie one end of the rope around it at the average waist height of the players. Choose which side of the rope the players will walk and clear that area of any obstacles.

From time to time change the waist-high level of the rope so that it goes, for example, under a log or rock forcing the players to explore objects on the ground. Keep the rope taut by occasionally tying it around a tree or staking it to the ground. This will help to keep the players from straying too far off of the path.

Some players will walk the Blind Trail slowly touching and feeling everything within arm's reach. In order to keep others from racing through the trail you can set along the pathway interesting objects like moose antlers or textured stones to add variety and interest.

You can also create in your trail a long stretch where players can walk quietly, feel the warmth of the sun, listen to the song of the birds, and hear the wind in the trees.

Other suggestions for Blind Trail are to choose four or more responsible helpers to manage the flow of the activity to ensure player safety. After each player has been blindfolded and begins walking the trail, the leader should wait twenty to thirty seconds before starting the next player in order to create a calm space around each player. Encourage the players to explore and experience as much as they can during their Blind Trail walk.

Objectives

To building sensory awareness and trust

RESOURCES

- **Forty to sixty yards of rope**
- **Blindfolds**

Adapted from Joseph Cornell's (2015) book, Sharing Nature

Sharing Inspiration Activities

The purpose of the sharing inspiration activities below is to allow the children to reflect on their experience when out in nature and to share it with others. Reflecting on this experience clarifies and strengthens its meaning. Using the arts such as creative writing, drawing and poetry to capture and express this experience allows the children to deepen their introspection and foster group sharing. (Cornell, 2015).

Silent Sharing Walk

On Silent Sharing Walks participants stroll through beautiful natural areas. In groups of two or three they walk slowly and silently sharing what they see with each other.



Divide the children into groups of two or three. Tell them that they will be walking in silence and when one walker sees something captivating, instead of speaking aloud he should gently tap one of the teammates shoulders, then point to the object and silently share the enjoyment.

Choose a trail that is easy to wander, since sharing teams move slowly and the distance will not be great. By keeping silent and sharing nonverbally the walkers become fully present with nature and one another.

Objectives

To develop a rapport with nature

RESOURCES

- A natural landscape

Adapted from Joseph Cornell's (2015) book, Sharing Nature

Vertical Poem

A vertical poem or an acrostic is a type of poem with a vertical structure that makes it very easy to write. To practice writing this type of poem have the children first observe something in nature that captivates them. This may be a flower, a tree, an ocean view or a flowing stream. Ask the children to notice its effects on them and to choose one word that captures this feeling. Then use each letter of the word to begin a line of their poem.

For example:

Fragrances of fallen leaves
Animals storing food
Leaves falling like raindrops
Light fades in the forest



Objectives

To clarify and strengthen personal experience

RESOURCES

- Paper and pencil

*Adapted from Joseph
Cornell's (2015) book,
Sharing Nature*

Every Child

by Edna Casler Joll

Every child should know a hill,
And the clean joy of running down its long slope
With the wind in his hair.

He should know a tree-
The comfort of its cool lap of shade,
And the supple strength of its arms
Balancing him between earth and sky
So, he is the creature of both.

He should know bits of singing water-
The strange mysteries of its depths,
And the long sweet grass that border it.

Every child should know some scrap
Of uninterrupted sky, to shout against:
And have one star, dependable and bright,
For wishing on.



Resources and Recommended Reading

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